FURTHER VALIDATION OF THE

K-D PRONENESS SCALE

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FURTHER VALIDATION OF THE K-D PRONENESS SCALE

Submitted by

Mary C. Donahue

(B.S. in Education, Boston University, 1946)

In partial fulfillment of
the requirements for the degree of
Master of Education

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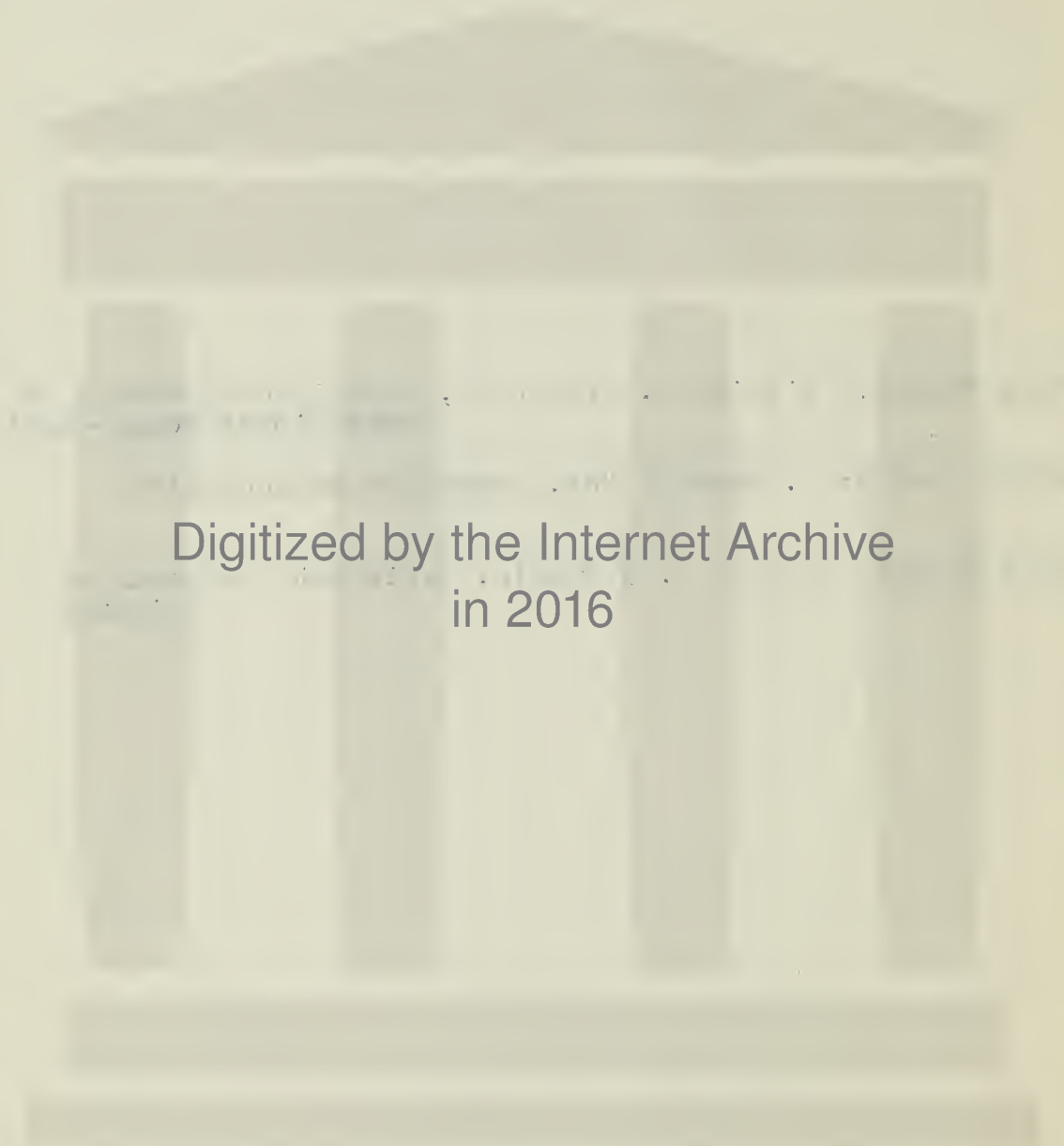

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CHAPTER I

THE PROBLEM

CHAPTER I

THE PROBLEM

Juvenile Delinquency is a matter of national concern. In November, 1946, Attorney-General Tom G. Clark called a national conference in Washington to unite all federal, state, municipal, and private organizations in the prevention and control of juvenile delinquency. The following year the National Society for the Study of Education devoted a section of its Yearbook to the subject of juvenile delinquency. Massachusetts, in 1948, became the fourth state to legalize a Youth Service Board to aid the communities in reducing and preventing delinquency. Ellingston[1] points out, however, that: "The legislation in all four states transfers emphasis from delinquency and its correction to the improvement of all services to all children and youth of the state." This study was concerned with the idea of preventing delinquency through the early identification of the potential delinquent by the use of a predictive scale.

1. Ellingston, John R. Protecting Our Children from Criminal Careers. New York: Prentice-Hall, Inc., 1948, p. 5.

PURPOSE OF THE STUDY

The purpose of this study was to validate further the K-D Proneness Scale in the following ways: (1) to determine, by item analysis, which items of the Scale differentiated between a group of girls known to be delinquent and an unselected group of public school girls; (2) to determine the relationship between the Scale and the following outside criteria: (a) Intelligence tests scores (b) Personal Index[1] scores and (c) Teachers' Behavior Ratings; (3) to determine the reliability of the Scale.

SCOPE OF THE PROBLEM

The Scale was administered by the writer to eighty-one delinquent girls in a state industrial school. Fifty-three girls of the same group were given the Scale a second time, after an interval of six weeks, in order to determine the reliability. The Scale was also administered to girls in four junior-high schools of Portland, Oregon and eighty-one of these Scales were selected at random as representative of the non-delinquent or control group. The Scale scores of seventy-three girls in a vocational school in an industrial city of southeastern Massachusetts were chosen as those

1. Loofbourow, Graham C. and Keys, Noel. Personal Index, Minneapolis: Educational Test Bureau, Inc., 1933.

representative of a group of possible pre-delinquents. The Intelligence test scores of all of the girls tested were obtained from the school records at the time the Scales were administered. The Personal Index scores and the Teachers' Behavior Ratings were used as criteria data only for the vocational school girls.

IMPORTANCE OF THE STUDY

Many authorities agree that a preventive rather than a reformative program is to be desired in dealing with the problem of juvenile delinquency.

More than seven hundred of the leading authorities on juvenile delinquency in the United States, attending a National Conference on Prevention and Control of Juvenile Delinquency,[1] summed up their findings as follows:

> We are concerned with our country's most precious resources - children and youth. Studies in juvenile delinquency and crime indicate that prevention is less expensive than cure. Some of these same studies indicate also that the expensive "cures" employed are all too often ineffective.

1. National Conference on Prevention and Control of Juvenile Delinquency, "Report on Schools and Teacher Responsibilities," Washington, D. C.: United States Government Printing Office, 1947, p. 30.

Banay,[1] Harris,[2] and Williams[3] have expressed similar opinions concerning the prevention of juvenile delinquency.

Healy and Bronner[4] and Ludden[5] are convinced that it is often impossible to check a delinquent career once it has started.

It is recognized, as many studies point out, that an early identification of potential delinquents would be invaluable in the prevention of delinquency.

Ellingston[6] believes that the detection of pre-delinquents would help to nip delinquency in the bud. Reckless[7] presents the same point of view when he suggests that: "What preventive work needs is guidance from delinquency prediction studies".

1. Banay, Ralph S. Youth in Despair, New York: Coward-McCann, Inc., 1948, p. 24.
2. Harris, Dale B. "Suggestions for the School from Recent Literature on Juvenile Delinquency", Forty-Seventh Yearbook of the National Society for the Study of Education, Part I, 1948, p. 248.
3. Williams, Harold D. "A Survey of Predelinquent School Children of Ten Midwestern Cities", The Journal of Educational Sociology, 7:365, February, 1934.
4. Healy, William and Bronner, Augusta F. New Lights on Delinquency and Its Treatment, New Haven: Yale University Press, 1936, p. 216.
5. Ludden, Wallace, "Anticipating Cases of Juvenile Delinquency", School and Society, 59:123, February, 1944.
6. Ellingston, op. cit. p. 282.
7. Reckless, Walter C. "Juvenile Delinquency and Behavior Patterning", The Journal of Educational Sociology, 10:503, April, 1937.

DEFINITION OF TERMS

Delinquency proneness is interpreted in this study to mean a tendency toward delinquency.

Delinquent girls in this study refer to girls committed to a state industrial school.

Pre-delinquent girls in this study refer to girls in a vocational school.

Non-delinquent girls in this study refer to an unselected group of public school girls.

The following study is an attempt to validate an instrument designed to predict delinquency proneness by the identification of the potential delinquent.

CHAPTER II

REVIEW OF PREVIOUS RESEARCH

CHAPTER II

REVIEW OF RESEARCH

The research concerning personality tests that attempt to discriminate between delinquents and non-delinquents will be presented in this chapter. Another background chapter on this subject may be found in MacDowell's[1] study. A few of the tests reviewed in his study will be referred to whenever applicable to this study.

The measurement of personality is an extremely difficult task due to its intangibility and its complexity. However, as Traxler[2] commented, the fact that there is difficulty in defining personality and lack of agreement concerning its components should not be an insuperable obstacle to measurement.

Ellis[3], in his comprehensive review of personality questionnaires, emphasized that most of them showed little evidence of statistical validation and rated few of them with positive signs of validity.

Although claiming that personality tests are of uncertain worth as diagnostic guides in the individual cases, Merrill[4]

1. MacDowell, Robert S. "A Partial Validation of an Attitude and Behavior Scale", Unpublished Master's Thesis, Boston University School of Education, Boston, 1947.
2. Traxler, Arthur E. Techniques of Guidance, New York: Harper and Brothers, 1945, p. 100.
3. Ellis, Albert. "The Validity of Personality Questionnaires", Psychological Bulletin 43:438; September, 1946.
4. Merrill, Maud A. Problems of Child Delinquency, Boston: Houghton Mifflin Company, 1947, p. 40.

agreed, nevertheless, that it is of crucial importance to have objective measures which serve as checks upon subjective judgments, as media of expression for verbally inhibited adolescents, and to reveal unsuspected areas of tension in maladjusted children. In comparing personality measures with measures of mental ability, Williams[1] concluded:

> Reasonably good tests of general mental ability are available but correspondingly valid measures of personality, attitudes, and emotional conditions are more difficult to construct and administer. Some progress has been made, however, and the outlook is not unpromising.

The instruments for the testing of personality, even in the field of emotional adjustment, are diverse and numerous. This study will classify the tests reviewed herein according to their effectiveness or ineffectiveness in distinguishing the delinquent from the non-delinquent.

EFFECTIVE TESTS

The following tests have proven effective to some degree in discriminating between delinquents and non-delinquents.

One of the first attempts to measure personality objectively was made by Woodworth when he constructed a questionnaire for the Army in 1917, called the Woodworth Personal Data Sheet. Many revisions of this questionnaire have been

---

1. Williams, J. Harold. "Behavior Problems", Journal of Exceptional Children 11: 195-197; May, 1944.

made but the one that has been used most often in the field of delinquency is the Woodworth-Mathews Questionnaire. It is intended for use with adolescents and has been reported successful in the following studies.

Slawson[1] found that the delinquent boys as a whole were decidely inferior in the status of their emotional stability as compared with a fairly unselected group of normal boys when tested by the Mathews Questionnaire.

A number of delinquent boys in a Canadian Training School were tested by Bridges and Bridges[2] and the questionnaire gave a median score of twenty-one symptomatic responses for the delinquents as compared with nine for unselected children. Delinquents tended to have marked conflict with home and school and a marked tendency to bully other boys.

Bridges[3] administered the questionnaire to thirty-three delinquent girls and reported that they showed many symptoms of psychopathic and emotionally unstable conditions. The home environment was considered the most fundamental factor leading to the delinquency of these girls.

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1. Slawson, John. "Psychoneurotic Responses of Delinquent Boys", Journal of Abnormal Social Psychology 20:261-81, 1925.

2. Bridges, James W., and Bridges, K. M. B. "Psychological Study of Juvenile Delinquency by Group Methods," Genetic Psychology Monographs 1: 413-56; September,1926.

3. Bridges, James W. "A Study of a Group of Delinquent Girls," Journal of Genetic Psychology 34: .87-204; 1927.

In a series of tests used to study the emotional reactions of delinquent and non-delinquent girls, Courthial[1] used this questionnaire and found that emotional differences existed in spite of matched chronological age, intelligence and environment. The delinquent girls showed a tendency toward emotional instability to a much greater degree than the non-delinquent girls.

Daniel[2] gave several tests to a group of delinquent and non-delinquent Negro boys and found that the questionnaire showed a reliable difference between the two groups. The results indicated that delinquents differ from non-delinquents in what they do and how they feel in degree rather in kind.

In a comprehensive testing program given to delinquent and non-delinquent boys in Indiana, Bartlett and Harris[3] reported that the Woodworth-Mathews Personal Data Sheet revealed greater emotional instability in the delinquent group.

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1. Courthial, Andree. "Emotional Differences of Delinquent and Non-Delinquent Girls of Normal Intelligence," New York: Archives of Psychology, No. 133; 1931.

2. Daniel, Robert P. "Personality Differences Between Delinquent and Non-Delinquent Negro Boys," Journal of Negro Education 1: 381-87; October, 1932.

3. Bartlett, Edward R., and Harris, Dale B. "Personality Factors in Delinquency," School and Society 43: 653-56; May, 1936.

Cushing and Ruch[1] employed the Woodworth-Cady Revision with a group of delinquent and non-delinquent girls in Iowa. A highly significant difference was reported between the mean scores of the two matched groups.

The White House Scale (a brief questionnaire of twenty-four questions selected from the Mathews, Cady, and Slawson revisions of the Woodworth Personal Data Sheet) differentiated clearly between groups of adolescent delinquents and non-delinquents in a study by Cavan.[2] She also confirmed the adaptability of the Scale for use with girls.

The Pressey Attitude-Interest Test was also reported as having some success in several studies.

Durea[3] selected questions from each of the four sub-tests of the Pressey Test and found a reliable difference between the mean scores of a group of thirteen year old delinquents and of a control group of similar age.

In their work with the Pressey Tests, Durea and Fertman[4] measured the emotional maturity of delinquent girls. The

1. Cushing, Hazel M., and Ruch, Giles M. "An Investigation of Character Traits in Delinquent Girls," Journal of Applied Psychology 11: 1-6; February, 1927.

2. Cavan, Ruth S. "The Murray Psychoneurotic Inventory and the White House Conference Inventory," Journal of Juvenile Research 18: 23-27; January, 1934.

3. Durea, Mervin A. "Personality Characteristics of Juvenile Delinquents. II Reliability of Differentiating Traits," Child Development 8: 257-62; 1937.

4. Durea, Mervin A., and Fertman, M. H. "Emotional Maturity of Delinquent Girls," American Journal of Orthopsychiatry 11: 335-8; 1941.

delinquent girls' scores compared unfavorably with the norms for the non-delinquent girls on both total and sub-test scores.

The Pressey Attitude-Interest Tests were used by Odoroff and Harris.[1] They compared scores made by boys in a training school, boys in a high school in a delinquency area, and an unselected group of boys. The study clearly indicated that delinquent boys are more like non-delinquents who come from similar social background than delinquents are like unselected boys in general.

Durea and Assum[2] administered the Pressey Tests to delinquent and non-delinquent girls. Twenty-nine items were found to differentiate between the groups. The mean total scores on the differential items were significant.

The following studies were reported as having some success with the Maller Character Sketches.

Daniel[3] found that this questionnaire gave the greatest differentiation between delinquent and non-delinquent Negro boys of all the tests used in his study.

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1. Odoroff, Maurice E., and Harris, Dale B. "A Study of the Interest-Attitude Test Scores of Delinquent and Non-Delinquent Boys," Journal of Educational Psychology 33: 13-24; 1942.

2. Durea, Mervin A., and Assum, A. L. "The Reliability of Personality Traits Differentiating Delinquent and Non-Delinquent Girls," Journal of Genetic Psychology 72: 307-311; 1948.

3. Daniel, loc. cit.

Among a group of tests given to delinquent and non-delinquent girls in Tennessee, Boynton and Walsworth[1] reported that the Maller Tests did distinguish, though not significantly, between the groups tested.

The Measurement of Social Attitudes Scales by Thurstone revealed interesting data when used with delinquents and non-delinquents. Three of Thurstone's Scales were given to delinquent and non-delinquent girls by Middleton and Fay[2] with the result that the delinquent girls showed more favorable attitudes toward Sunday observance and the Bible, and no significant attitude toward war.

In another study, Middleton and Wright[3] employed the Thurstone's Scales on God, the church, and law, with groups of delinquent and non-delinquent children. Statistically significant differences showed that (1) delinquent girls had more favorable attitudes than non-delinquent girls toward

1. Boynton, Paul L., and Walsworth, Barrier M. "Emotionality Test Scores of Delinquent and Non-Delinquent Girls," Journal of Abnormal Social Psychology 38: 87-92; 1943.

2. Middleton, Warren C., and Fay, Paul J. "Attitudes of Delinquent and Non-Delinquent Girls Toward Sunday Observance, the Bible, and War," Journal of Educational Psychology 32: 555-8; 1941.

3. Middleton, Warren C., and Wright, R. R. "A Comparison of a Group of Ninth and Tenth Grade Delinquent and Non-Delinquent Boys and Girls on Certain Attitude Scales," Pedagogical Seminary and Journal of Genetic Psychology 58: 139-50; 1941.

God, the church, and law; (2) delinquent girls had more favorable attitudes than delinquent boys toward God and the church; (3) non-delinquent boys had more favorable attitudes toward God than non-delinquent girls.

The Washburne Social Adjustment Inventory had favorable reports in two studies. The author,[1] gave the social adjustment inventory to a group of normal high school children and to a group of prisoners of the same age range. He found a highly significant difference between the results for these groups.

Capwell,[2] in her work with delinquent and non-delinquent girls, reported that the Washburne Inventory served to differentiate between her two groups.

Loofbourow and Keys[3] studied the significance of a battery of tests used in the selection of delinquents and found the following to be most valuable: (1) a false vocabulary test; (2) a social attitude test; (3) an adjustment questionnaire. For purposes of validation, the authors applied the tests to three distinct groups consisting of: boys

1. Washburne, John N. "A Test of Social Adjustment," Journal of Applied Psychology 19: 125-144; April, 1935.

2. Capwell, Dora F. "Personality Patterns of Adolescent Girls II. Delinquent and Non-Delinquent," Journal of Applied Psychology 29: 289-297; August, 1945.

3. Loofbourow, Graham C., and Keys, Noel. "A Group Test of Problem-Behavior Tendencies in Junior High School Boys," Journal of Educational Psychology 24: 641-653; December, 1933.

in a reformatory, several groups of junior high school boys selected as the most serious disciplinary problems, and an unselected group of junior high school boys. The revised battery showed highly significant differences between the delinquents and the control group of non-delinquents. It is a group test and may be used for boys or girls. The Personal Index is intended for the detection of attitudes indicative of problem behavior. It is one of the few tests that is designed primarily for this purpose and for this reason was selected as the criterion test for this study.

The Minnesota Multiphasic Personality Inventory was also reported favorably by Capwell.[1] The mean score of a group of institutionalized delinquents was beyond the range of normal persons, and that with the single exception of the Hysteria Scale, all eight scales served to differentiate the delinquent girls from the non-delinquent girls.

Boynton and Walsworth[2] found the Roger's Test of Personality Adjustment differentiated between the groups of girls used in their study.

The Bernreuter (B_1-N) Scale was reported by Horsch and Davis[3] to differentiate reliably between normal high school

1. Capwell, loc. cit.

2. Boynton and Walsworth, loc. cit.

3. Horsch, Alfred C., and Davis, Robert G. "Personality Traits of Juvenile Delinquents and Adult Criminals," Journal of Social Psychology 9: 57-65; 1938.

students and delinquents in a state industrial school. It did not, however, distinguish state reformatory inmates from college students of equivalent ages.

Houtchens[1] used the Humm-Wadsworth Temperament Scale with four groups: adults, non-delinquent adolescents, delinquent adolescents, and mildly delinquent adolescents. He concluded that significant differences were found between delinquent and non-delinquent adolescents in all components except the epileptoid. He also found that adolescents were more unstable in their actions and feelings than adults.

Smith[2] prepared a questionnaire designed to measure inferiority feelings and found that delinquents have shown a greater tendency towards feelings of inferiority and greater differences in recreational interests than non-delinquents.

The Sims Socio-Economic Rating Scale was administered by Thomas[3] to several hundred delinquent and non-delinquent children. He reported that a markedly higher average score was made by the non-delinquent groups. The difference between the ratings of native-born and foreign-born was not as great as that between the delinquents and non-delinquents.

1. Houtchens, H. Max. Temperament in Adolescent Groups. University of Iowa Studies Child Welfare, 15: 7-68; 1938.

2. Smith, Randolph B. "The Development of an Inventory for the Measurement of the Inferiority Feelings at the High School Level," New York: Archives of Psychology, No. 144, 1932.

3. Thomas, Coronal. "A Comparison of Interests of Delinquent and Non-Delinquent Boys." Journal of Juvenile Research 16: 310-18; 1932.

A new technique for individual study of the delinquent by a low-pressure interview method was developed by Stogdill.[1] It consists of a set of 150 behavior cards which the subject sorts into "Yes" and "No" boxes. After the subject has left the room the responses are recorded and the cards may be used over again. Total scores on the test were found to differentiate between delinquent boys and the control group.

INEFFECTIVE TESTS

The following tests have proven, in the studies indicated, to be ineffective in discriminating between delinquents and non-delinquents.

The Woodworth-Mathews Questionnaire, when used by Asher and Haven[2] to measure the reactions of several hundred delinquent and non-delinquent boys in Kentucky, revealed no significant differences between the two groups.

Watts[3] employed the Woodworth-Mathews Test in his investigation with Negro boys and reported that it failed to differentiate between them. He concluded that delinquent boys led more active lives than non-delinquents. In the same study,

1. Stogdill, Ralph Melvin. "A Test-Interview for Delinquent Children," Journal of Applied Psychology 24: 325-33; June, 1940.
2. Asher, Eston J., and Haven, S. Edson. "The Reactions of State Correctional School and Public School Boys to the Questions of an Emotional Inventory," Journal of Juvenile Research 14: 96-106; 1930.
3. Watts, Fred P. "A Comparative Clinical Study of Delinquent and Non-Delinquent Negro Boys," Journal of Negro Education 10: 190-207; April, 1941.

he found that the Personal Index and the Vineland Social Maturity Scale did not differentiate between the two groups.

Capwell[1] reported the Vineland Social Maturity Scale and the Pressey Attitude-Interest Tests as being of no value in discriminating between delinquent and non-delinquent girls. She found the former test was more related to intelligence than to delinquency.

Weber[2] found little difference between female delinquents and university women on moral insight by the use of the Brogan Test of Moral Perception.

Casselberry[3] found the Bernreuter Personality Inventory failed to show a significant difference between the delinquent and non-delinquent boys in any of the scores obtainable from it.

Babcock[4] used the Sweet Test of Personal Attitudes to measure a group of delinquent and normal boys. She reported that no significant differences between the means of the

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1. Capwell, loc. cit.

2. Weber, C. O. "Moral Judgment in Female Delinquents," Journal of Applied Psychology 10: 89-91; March, 1926.

3. Casselberry, William S. "Analysis and Prediction of Delinquency," Journal of Juvenile Research 16: 1-31; January, 1932.

4. Babcock, Marjorie E. A Comparison of Delinquent and Non-Delinquent Boys by Objective Measures of Personality, New York: Columbia University Press, 1932.

institutionalized and the public school boys were found in any of the seven categories of the test. The Rogers Test of Personality Adjustment also failed to differentiate between the groups of this study.

Bartlett and Harris[1] found that the Bell Adjustment Inventory showed no significant differences existed between the delinquent and non-delinquent boys on its general social adjustment scale but marked differences appeared in the degree of emotional adjustment.

The Bell Adjustment Inventory was also reported by Wittman and Huffman[2] as finding no statistically significant differences between normal high school students and a contrasted group of teen-aged delinquents. They found a definite overlapping between the two groups.

In the same study, Wittman and Huffman found that the Guilford-Martin Inventory did not discriminate between the two groups. The greatest percentages of the control and delinquent boys were in the average and well-adjusted group. The delinquent girls also rated average for health and social adjustment but in home adjustment, forty-four per cent were maladjusted; in emotional adjustment, fifty per cent were poorly adjusted.

1. Bartlett-Harris, loc. cit.

2. Wittman, Mary P., and Huffman, A. V. "A Comparative Study of Developmental, Adjustment, and Personality Characteristics of Psychotic, Psychoneurotic, Delinquent, and Normally Adjusted Teen-Aged Youths," Journal of Genetic Psychology, 66: 167-82; June, 1945.

The Rorschach tests were reported as of little value in differentiating between the delinquents and the non-delinquents of the Boynton-Walsworth[1] study.

A survey of the literature indicates that a greater number of the studies reported in the field of juvenile delinquency have been done with boys rather than with girls. This is probably due to the fact that there are, as Williams[2] states, approximately four times as many boys as girls listed as pre-delinquents. Merrill[3] points out that it is not because girls are better behaved than boys but that girls who get into trouble are more often reported to their parents than brought into court. Likewise, Banay,[4] in accounting for the lesser number of girl delinquents, remarks that in an effort to protect the reputation of girls, a greater proportion of the girl delinquents are referred to social agencies before their cases are reviewed by the courts.

1. Boynton-Walsworth, loc. cit.
2. Williams, op. cit., p. 367.
3. Merrill, op. cit., p. 65.
4. Banay, op. cit., p. 88.

SUMMARY OF RESEARCH

The results of the review of the research are summarized as follows:

1. Although the measurement of personality adjustment is an admittedly difficult task, a few tests have proven effective in differentiating between the delinquent and the non-delinquent adolescent.
2. There seems to be two techniques used to identify the potential delinquent. The first technique has been to use well known tests constructed for some other purpose and determine if they will distinguish between the delinquent and the non-delinquent. The second technique is to attempt to identify incipient delinquent tendencies by tests designed primarily for that purpose. There have been very few tests of this type constructed.
3. There is no clear-cut line of demarcation between the delinquent and the non-delinquent. The results of tests indicate that delinquents differ from non-delinquents in what they do and how they feel in degree rather in kind.
4. Test results reveal that the delinquents tend to be more emotionally unstable than the non-delinquents.
5. Personality tests are still in the experimental stage and authorities agree that the most fundamental need is for further research on validation of instruments.

CHAPTER III

PROCEDURES AND STATISTICAL TECHNIQUES

CHAPTER III

PROCEDURES AND STATISTICAL TECHNIQUES

A review of the research revealed that few tests have been designed primarily for the identification of potential delinquents as a means of preventing juvenile delinquency. Du Shane[1] observed that an early identification of predelinquents will result in a notable decrease in delinquency. Traxler[2] stated that the greatest need in the field of personality measurement is the validation of tests.

SCOPE OF THE PROBLEM

The Scale was administered by the writer to eighty-one delinquent girls in an Industrial School for Girls (a state institution for delinquent girls). The Scale was also administered to girls in four junior high schools in Portland, Oregon, and eighty-one of these tests were selected at random as representative of the non-delinquent group. The Scale tests given to seventy-three girls in a vocational school in an industrial city in southeastern Massachusetts were chosen as those representative of a group of possible predelinquents.

1. Du Shane, Donald, "The Schools and Juvenile Delinquency", Journal of the National Education Association 36:100, February, 1947.

2. Traxler, Arthur E. "Measurement in the Field of Personality", Education, 66:429, March, 1946.

DESCRIPTION OF THE SCALE

The K-D Proneness Scale consists of seventy-four multiple choice questions with each question having four choices. Most of the items in the Scale were based on the significant differences found between delinquents and non-delinquents noted in a study made by the author in Passaic, New Jersey.

The author[1] of the Scale remarks:

> If significant differences in attitude responses on a test such as the K-D Proneness Scale can be noted between groups who behave differently, it may then be possible to apply the same scale to other children and to note the extent to which they reveal attitudes previously found to be associated significantly with individuals who are known to have certain types of behavior. Knowledge of the existence of these attitudes and predisposition for certain types of undesirable conduct and behavior may enable the parent, the teacher, the clinician, and the probation officer to evaluate better delinquency proneness and to take the proper remedial or corrective steps to prevent culmination of certain attitudes in undesirable behavior.

DIRECTIONS ON THE SCALE

To overcome the disadvantage of falsifying the answers or giving socially acceptable responses, emphasis was made in the test directions that there was no right or wrong answer to any question.

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1. Kvaraceus, William C. "Directions for Administration", K-D Proneness Scale (Experimental Edition). Privately Printed.

> This is a questionnaire to discover how you feel about certain things. This is not a test. There are no right or wrong answers. Read each question and the four answers that follow it. Select the answer that best describes how you really feel about the question. Do not skip any questions. Answer every question as you come to it. Be sure to select the answer that best describes how you feel or what you think about the question. Remember there is no right or wrong answer. Be sure to choose the answer that best tells how you feel about the question.[1]

ITEM ANALYSIS

An item analysis of the Scales administered to the delinquent and the public school groups was made to determine the differentiating capacity of each item. Responses to the items were tabulated and transferred into percentages for each of the groups. The standard errors of the percentages were obtained from the Edgerton and Paterson[2] tables.

The following formula was used to compute the Critical Ratios between the percentages of the response frequencies of each of the groups:

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1. Kvaraceus, loc. cit.

2. Edgerton, Harold A. and Paterson, Donald G. "Table of Standard Errors and Probable Errors of Percentages for Varying Number of Cases", Journal of Applied Psychology, 10:378-391, September, 1926.

$$C.R. = \frac{Diff._{p_1 p_2}}{S.E._{Diff._{p_1 p_2}}}$$

$$S.E._{Diff._{p_1 p_2}} = \sqrt{S.E._{p_1}^2 + S.E._{p_2}^2}$$

For the purpose of this study Mills'[1] critical ratio of 2.576 was considered statistically significant. This ratio is at the one percent level, the chances being ninety-nine in one hundred that this represents a true difference.

SCORING TECHNIQUE

The items were weighted according to the magnitude of their critical ratios and the weighted scores used to establish a Girls' Scoring Key. A weight of +3 or -3 was given when the critical ratio exceeded 3.090. When the critical ratio was between 2.577 and 3.090, the item was given a weight of +2 or -2. When the critical ratio was between 1.960 and 2.576, the item was given a weight of +1 or -1. A positive symbol (+) indicated that the delinquent group selected that item to a greater degree, and a minus symbol (-) indicated that the non-delinquent group favored

1. Mills, Frederick C. Statistical Methods Applied to Economics and Business (Revised). New York: Henry Holt and Company, 1938, p. 471.

the item. The total score of the subject on the Scale was the sum of the positive and negative scores.

CRITERIA DATA

In this experiment the following outside criteria were used for the purposes of further validation: (1) Intelligence Test Scores (Otis[1] Self-Administering-Intermediate) (2) Personal Index[2] Scores (3) Behavior Ratings of Eight Teachers. The intelligence test scores were obtained from the records of the schools. The Personal Index Scores and Teachers' Behavior Ratings were tabulated by J. C. Delehanty and apply only to the vocational school girls.

The Pearson Product-Moment Formula[3] of correlation was used to discover the relationship between the K-D Proneness Scale scores and the following: (1) Intelligence test scores (2) Personal Index scores (3) Teachers' Behavior Ratings.

1. Otis, Arthur S. Otis Self-Administering Test of Mental Ability-Intermediate, Yonkers: World Book Company, 1922.

2. Loofbourow and Keys, loc. cit.

3. Greene, Harry A., Jorgenson, Albert N., and Gerberich, J. Raymond. Measurement and Evaluation in the Elementary School, New York: Longmans, Green and Company, Inc., 1945, p. 532.

Pearson Product-Moment Formula: $r = \frac{\frac{\Sigma_{xy}}{N} - c_x c_y}{\sigma_x \sigma_y}$

RELIABILITY

The reliability of the Scale was determined by the test-retest method. The Scale was administered to eighty-one delinquent girls. After an interval of six weeks the Scale was again administered to fifty-three girls of the same group. This procedure was the only practical means of determining the reliability since there was only one form of the Scale and it did not lend itself to division into two halves for the purpose of split-half comparison. The retesting coefficient of correlation was computed by the Pearson-Product-Moment Technique.

SUMMARIES OF THE ISSUES BEING INVESTIGATED

The purpose of the K-D Proneness Scale was to locate delinquency proneness. The answers to the following questions will shed more light on the validity and the reliability of the Scale.

(1) Was there a significant difference between the delinquent group and the public school group?

(2) Was there a significant difference between the delinquent group and the vocational school group?

(3) Was there a significant difference between the vocational school group and the public school group?

(4) Was there a Critical Score that will include: (a) a large percentage of the delinquent group (b) a smaller percentage of the vocational school group (c) a very small percentage or none of the public school group?

(5) Was there a high or a low correlation between the Scale scores and the Intelligence test scores?

(6) Was there a high or a low correlation between the Scale scores and the Personal Index scores?

(7) Was there a high or a low correlation between the Scale scores and the Teachers' Behavior Ratings?

(8) Was there a high or a low correlation between the first and the second administration of the Scale?

CHAPTER IV

ANALYSIS OF DATA

CHAPTER IV

ANALYSIS OF DATA

The purpose of this study was to validate the K-D Proneness Scale to predict delinquency proneness in girls.

The Scale was administered to eighty-one delinquent girls, eighty-one public school girls, and seventy-three vocational school girls.

The data were analyzed to determine:

(1) The general statistics of the three representative groups of girls tested.

(2) The validity of the Scale items.

(3) The Scoring Key for Girls.

(4) The distribution of the Scale Scores.

(5) The Critical Score.

(6) The significance of the differences between the groups.

(7) The extent to which intelligence influenced the Scale scores.

(8) The relationship between the Scale scores and the Personal Index scores.

(9) The relationship between the Scale scores and the Teachers' Behavior Ratings.

(10) The reliability of the Scale.

A summarization of the data will be presented in the tables of this chapter.

Table I presents the general statistics on the three representative groups of girls used in this study.

TABLE I

THE MEAN CHRONOLOGICAL AGES AND INTELLIGENCE QUOTIENTS OF THE GROUPS TESTED

N	Group	C.A.	S.D.	I.Q.	S.D.
81	Delinquent	179 mos.	14.22	93.59	15.18
73	Vocational School	172 mos.	5.76	91.23	11.10
81	Public School	181 mos.	17.73	108.33	9.90

Table shows that the mean chronological ages of the three groups do not differ greatly. The lowest mean age is 172 months for the vocational school group, the highest mean age is 181 months for the public school group. The mean intelligence quotient of 93.59 for the delinquent group falls within the low average IQ group. The mean intelligence quotient for the vocational school group is slightly lower than that of the delinquent group. The mean intelligence quotient of 108.33 for the public school group is in the upper part of the average distribution group of intelligence in a normal population (90-110).

Table II shows the critical ratios of the Scale items between a group of girls known to be delinquent and an unselected group of public school girls considered to be non-delinquent.

TABLE II

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
1.	A	27	26	≠ 1	.069	≠ .145
	B	49	52	- 3	.079	- .380
	C	5	16	-11	.048	-2.292
	D	19	6	≠13	.051	≠2.549
2.	A	17	32	-15	.067	-2.239
	B	20	19	≠ 1	.062	≠ .161
	C	23	26	- 3	.068	- .441
	D	40	23	≠17	.071	≠2.394
3.	A	2	4	- 2	.026	- .769
	B	51	51	0	0	0
	C	7	2	≠ 5	.032	≠1.563
	D	40	43	- 3	.077	- .390

Table II presents an analysis of the Scale items to determine the differentiating capacity of each item. For the purpose of this study a critical ratio of 2.576 is considered statistically significant. This ratio is at the one per cent level, the chances being 99 in 100 that this represents a true difference. There are fifty-four responses in the Scale that are statistically significant.

TABLE II (continued)

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
4.	A	2	1	≠ 1	.020	≠ .500
	B	14	4	≠10	.045	≠2.222
	C	14	16	- 2	.057	- .351
	D	70	79	- 9	.068	-1.324
5.	A	6	4	≠ 2	.035	≠ .571
	B	24	27	- 3	.068	- .441
	C	32	42	-10	.076	-1.316
	D	38	27	≠11	.073	≠1.507
6.	A	48	31	≠17	.076	≠2.237
	B	16	1	≠15	.042	≠3.571
	C	21	28	- 7	.067	-1.045
	D	15	40	-25	.067	-3.731
7.	A	60	57	≠ 3	.083	≠ .361
	B	25	36	-11	.071	-1.549
	C	5	5	0	0	0
	D	10	2	≠ 8	.036	≠2.222
8.	A	62	37	≠25	.076	≠3.289
	B	26	52	-26	.081	-3.210
	C	8	8	0	0	0
	D	4	3	≠ 1	.026	≠ .385
9.	A	32	28	≠ 4	.072	≠ .556
	B	39	48	- 9	.078	-1.154
	C	25	20	≠ 5	.065	≠ .769
	D	4	4	0	0	0
10.	A	22	17	≠ 5	.070	≠ .714
	B	33	9	≠24	.061	≠3.934
	C	31	25	≠ 6	.070	≠ .857
	D	14	49	-35	.069	-5.072

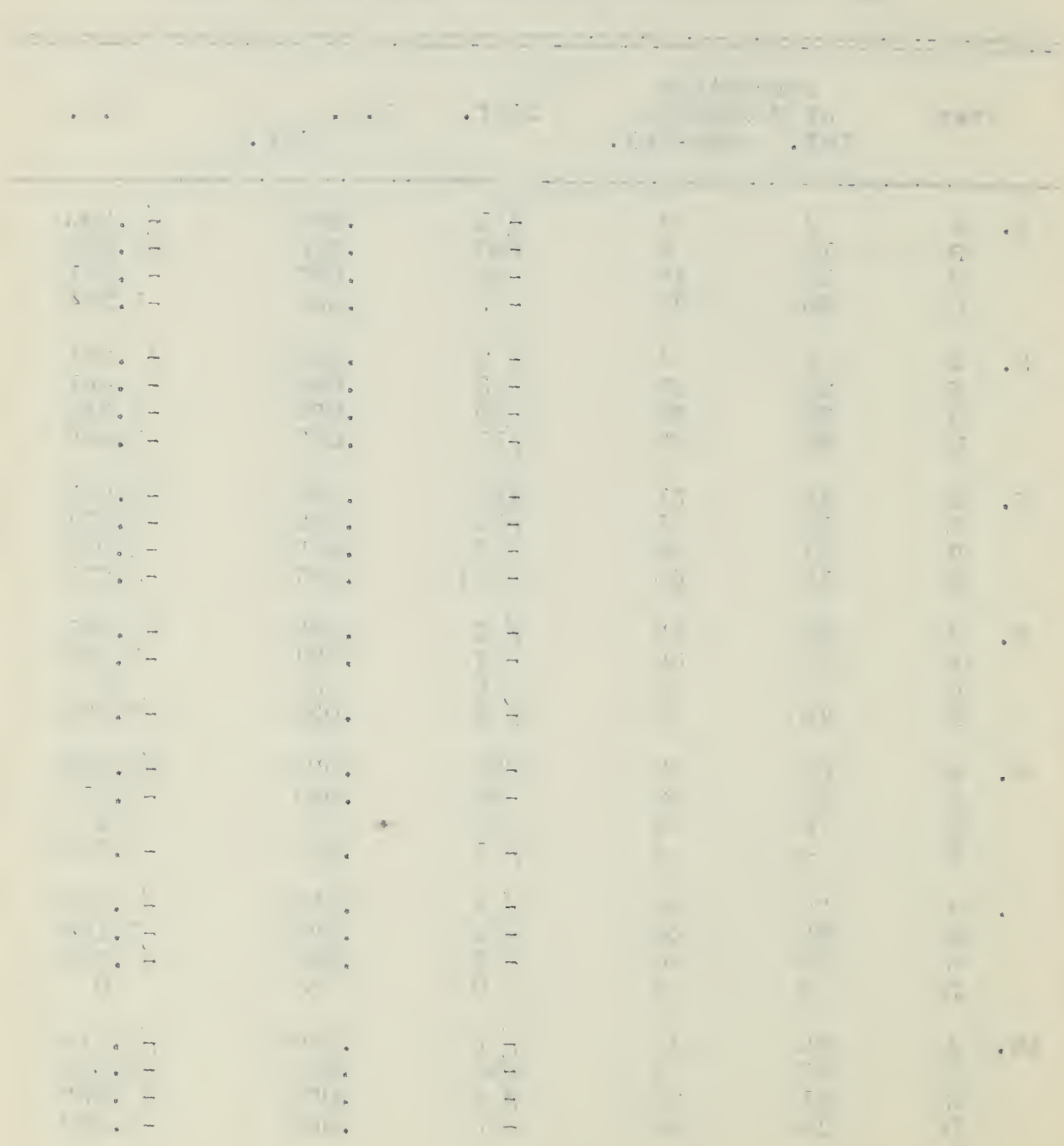

TABLE II (continued)

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
11.	A	66	33	≠33	.074	≠4.459
	B	33	64	-31	.074	-4.189
	C	0	0	0	0	0
	D	1	3	- 2	.020	-1.000
12.	A	38	52	-14	.078	-1.795
	B	29	37	- 8	.073	-1.096
	C	16	7	≠ 9	.050	≠1.800
	D	17	4	≠13	.047	≠2.766
13.	A	43	35	≠ 8	.076	≠1.053
	B	15	22	- 7	.061	-1.148
	C	7	22	-15	.054	-2.778
	D	35	21	≠14	.069	≠2.029
14.	A	11	5	≠ 6	.042	≠1.429
	B	14	16	- 2	.057	- .351
	C	32	48	-16	.076	-2.105
	D	43	31	≠12	.075	≠1.600
15.	A	16	25	- 9	.063	-1.429
	B	40	62	-22	.076	-2.895
	C	32	5	≠27	.057	≠4.737
	D	12	8	≠ 4	.048	≠ .833
16.	A	51	27	≠24	.074	≠3.243
	B	43	69	-26	.075	-3.467
	C	2	2	0	0	0
	D	4	2	≠ 2	.024	≠ .833
17.	A	27	0	≠27	.050	≠5.400
	B	17	16	≠ 1	.058	≠ .172
	C	5	15	-10	.047	-2.128
	D	51	69	-18	.076	-2.368

TABLE II (continued)

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
18.	A	8	1	≠ 7	.033	≠2.121
	B	40	63	-23	.076	-3.026
	C	41	32	≠ 9	.076	≠1.184
	D	11	4	≠ 7	.041	≠1.707
19.	A	38	33	≠ 5	.075	≠ .667
	B	12	24	-12	.059	-2.034
	C	5	16	-11	.048	-2.292
	D	45	27	≠18	.073	≠2.466
20.	A	23	36	-13	.071	-1.831
	B	9	11	- 2	.047	- .426
	C	26	25	≠ 1	.069	≠ .145
	D	42	28	≠14	.074	≠1.892
21.	A	6	4	≠ 2	.035	≠ .571
	B	28	28	0	0	0
	C	13	11	≠ 2	.050	≠ .400
	D	53	57	- 4	.078	- .513
22.	A	35	30	≠ 5	.073	≠ .685
	B	6	15	- 9	.048	-1.875
	C	3	16	-13	.047	-2.766
	D	56	39	≠17	.077	≠2.208
23.	A	12	5	≠ 7	.044	≠1.591
	B	30	43	-13	.075	-1.733
	C	46	50	- 4	.079	- .506
	D	12	2	≠10	.040	≠2.500
24.	A	21	35	-14	.069	-2.029
	B	21	42	-21	.071	-2.958
	C	15	7	≠ 8	.049	≠1.633
	D	43	16	≠27	.069	≠3.913

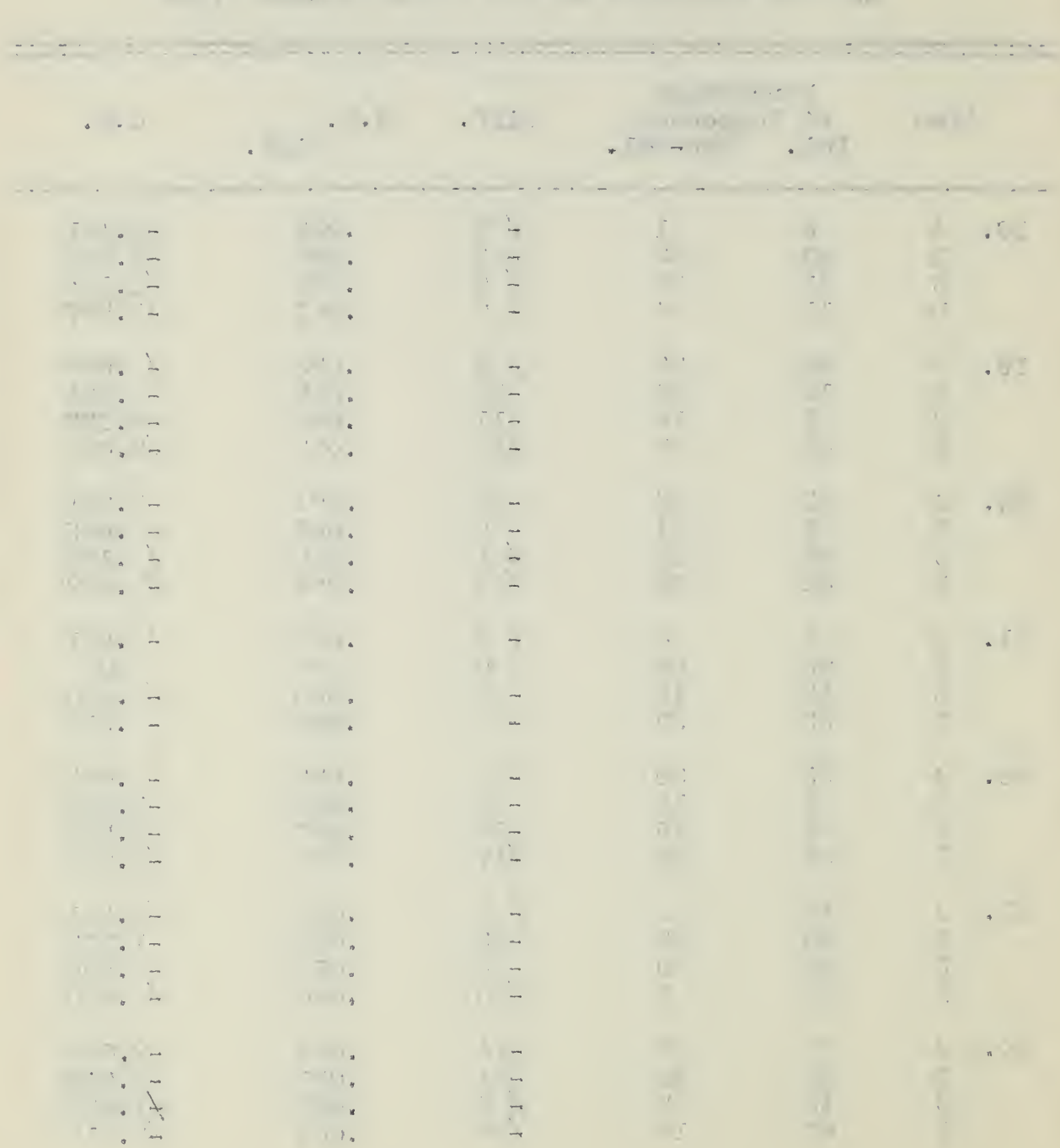

TABLE II (continued)

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
25.	A	0	4	- 4	.024	-1.667
	B	21	11	≠10	.057	≠1.754
	C	2	1	≠ 1	.020	≠ .500
	D	77	84	- 7	.062	-1.129
26.	A	14	5	≠ 9	.046	≠1.957
	B	14	26	-12	.062	-1.935
	C	43	63	-20	.077	-2.597
	D	29	6	≠23	.057	≠4.035
27.	A	79	93	-14	.053	-2.642
	B	4	5	- 1	.033	- .303
	C	2	2	0	0	0
	D	15	0	≠15	.041	≠3.659
28.	A	26	46	-20	.073	-2.740
	B	44	41	≠ 3	.078	≠ .385
	C	11	7	≠ 4	.045	≠ .889
	D	19	6	≠13	.051	≠2.549
29.	A	50	26	≠24	.074	≠3.243
	B	37	49	-12	.077	-1.558
	C	12	24	-12	.059	-2.034
	D	1	1	0	0	0
30.	A	7	2	≠ 5	.032	≠1.563
	B	20	15	≠ 5	.059	≠ .847
	C	32	42	-10	.076	-1.316
	D	41	41	0	0	0
31.	A	33	17	≠16	.067	≠2.388
	B	52	78	-26	.073	-3.562
	C	14	4	≠10	.045	≠2.222
	D	1	1	0	0	0

TABLE II (continued)

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
32.	A	37	12	≠25	.065	≠3.846
	B	34	56	-22	.076	-2.895
	C	25	27	- 2	.069	- .290
	D	4	5	- 1	.033	- .303
33.	A	38	47	- 9	.077	-1.169
	B	41	37	≠ 4	.077	≠ .519
	C	14	10	≠ 4	.051	≠ .784
	D	7	6	≠ 1	.039	≠ .256
34.	A	6	2	≠ 4	.030	≠1.333
	B	10	10	0	0	0
	C	33	51	-18	.076	-2.368
	D	51	37	≠14	.078	≠1.795
35.	A	17	14	≠ 3	.057	≠ .526
	B	40	49	- 9	.078	-1.154
	C	36	36	0	0	0
	D	7	1	≠ 6	.030	≠2.000
36.	A	28	32	- 4	.072	- .556
	B	26	25	≠ 1	.069	≠ .145
	C	15	12	≠ 3	.054	≠ .556
	D	31	31	0	0	0
37.	A	42	51	- 9	.079	-1.139
	B	51	38	≠13	.078	≠1.667
	C	1	2	- 1	.020	- .500
	D	6	9	- 3	.040	- .750
38.	A	4	0	≠ 4	.032	≠1.250
	B	69	33	≠36	.073	≠4.931
	C	1	1	0	0	0
	D	26	66	-40	.072	-5.556

TABLE II (continued)

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
39.	A	38	22	⁄16	.071	⁄2.254
	B	32	57	-25	.076	-3.289
	C	29	20	⁄ 9	.066	⁄1.364
	D	1	1	0	0	0
40.	A	4	0	⁄ 4	.024	⁄1.667
	B	5	5	0	0	0
	C	54	62	- 8	.077	-1.039
	D	37	33	⁄ 4	.075	⁄ .533
41.	A	11	21	-10	.057	-1.754
	B	14	1	⁄13	.040	⁄3.250
	C	6	16	-10	.049	-2.041
	D	69	62	⁄ 7	.074	⁄ .946
42.	A	9	5	⁄ 4	.039	⁄1.026
	B	21	30	- 9	.068	-1.324
	C	37	55	-18	.077	-2.338
	D	33	10	⁄23	.062	⁄3.710
43.	A	12	31	-19	.062	-3.065
	B	53	37	⁄16	.077	⁄2.078
	C	16	13	⁄ 3	.057	⁄ .526
	D	19	19	0	0	0
44.	A	10	20	-10	.055	-1.818
	B	28	35	- 7	.073	- .959
	C	57	44	⁄13	.078	⁄1.667
	D	5	1	⁄ 4	.026	⁄1.538
45.	A	16	15	⁄ 1	.057	⁄ .175
	B	59	49	⁄10	.079	⁄1.266
	C	10	11	- 1	.048	- .208
	D	15	25	-10	.062	-1.613

TABLE II (continued)

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
46.	A	2	1	≠ 1	.020	≠ .500
	B	9	9	0	0	0
	C	7	38	-31	.062	-5.000
	D	82	52	≠30	.071	≠4.225
47.	A	5	1	≠ 4	.026	≠1.538
	B	4	4	0	0	0
	C	45	42	≠ 3	.078	≠ .385
	D	46	53	- 7	.078	- .897
48.	A	21	25	- 4	.066	- .606
	B	20	35	-15	.069	-2.174
	C	31	34	- 3	.073	- .411
	D	28	6	≠22	.057	≠3.860
49.	A	59	5	≠54	.060	≠9.000
	B	21	6	≠15	.052	≠2.885
	C	10	67	-57	.062	-9.194
	D	10	22	-12	.057	-2.105
50.	A	47	9	≠38	.063	≠6.032
	B	35	32	≠ 3	.074	≠ .405
	C	16	54	-38	.069	-5.507
	D	2	5	- 3	.028	-1.071
51.	A	8	4	≠ 4	.036	≠1.111
	B	20	10	≠10	.055	≠1.818
	C	44	59	-15	.078	-1.923
	D	28	27	≠ 1	.070	≠ .143
52.	A	21	10	≠11	.056	≠1.964
	B	38	70	-32	.074	-4.324
	C	30	19	≠11	.067	≠1.642
	D	11	1	≠10	.036	≠2.778

TABLE II (continued)

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
53.	A	51	32	≠19	.076	≠2.500
	B	36	53	-17	.076	-2.237
	C	7	15	- 8	.049	-1.633
	D	6	0	≠ 6	.028	≠2.143
54.	A	12	11	≠ 1	.050	≠ .200
	B	14	36	-22	.066	-3.333
	C	20	35	-15	.069	-2.174
	D	54	18	≠36	.071	≠5.070
55.	A	1	1	0	0	0
	B	25	31	- 6	.070	- .857
	C	53	61	- 8	.077	-1.039
	D	21	7	≠14	.053	≠2.642
56.	A	3	1	≠ 2	.020	≠1.000
	B	1	0	≠ 1	.014	≠ .714
	C	11	14	- 3	.052	- .577
	D	85	85	0	0	0
57.	A	44	33	≠11	.076	≠1.447
	B	25	29	- 4	.069	- .580
	C	24	37	-13	.071	-1.831
	D	7	1	≠ 6	.030	≠2.000
58.	A	37	32	≠ 5	.075	≠ .667
	B	32	52	-20	.076	-2.632
	C	26	14	≠12	.062	≠1.935
	D	5	2	≠ 3	.028	≠1.071
59.	A	46	33	≠13	.076	≠1.711
	B	36	53	-17	.076	-2.237
	C	11	13	- 2	.052	- .385
	D	7	1	≠ 6	.030	≠2.000

TABLE II (continued)

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
60.	A	63	77	-14	.071	-1.972
	B	26	22	≠ 4	.067	≠ .597
	C	9	1	≠ 8	.033	≠2.424
	D	2	0	≠ 2	.020	≠1.000
61.	A	20	0	≠20	.046	≠4.348
	B	9	4	≠ 5	.037	≠1.351
	C	28	42	-14	.074	-1.892
	D	43	54	-11	.078	-1.410
62.	A	10	1	≠ 9	.035	≠2.571
	B	18	21	- 3	.063	- .476
	C	16	16	0	0	0
	D	56	62	- 6	.077	- .779
63.	A	37	48	-11	.078	-1.410
	B	43	46	- 3	.078	- .385
	C	10	4	≠ 6	.040	≠1.500
	D	10	2	≠ 8	.036	≠2.222
64.	A	69	79	-10	.068	-1.471
	B	1	1	0	0	0
	C	5	3	≠ 2	.028	≠ .714
	D	25	17	≠ 8	.064	≠1.250
65.	A	47	51	- 4	.079	- .506
	B	7	0	≠ 7	.030	≠2.333
	C	44	47	- 3	.078	- .385
	D	2	2	0	0	0
66.	A	4	13	- 9	.042	-2.143
	B	4	6	- 2	.035	- .571
	C	14	12	≠ 2	.054	≠ .370
	D	78	69	≠ 9	.069	≠1.304

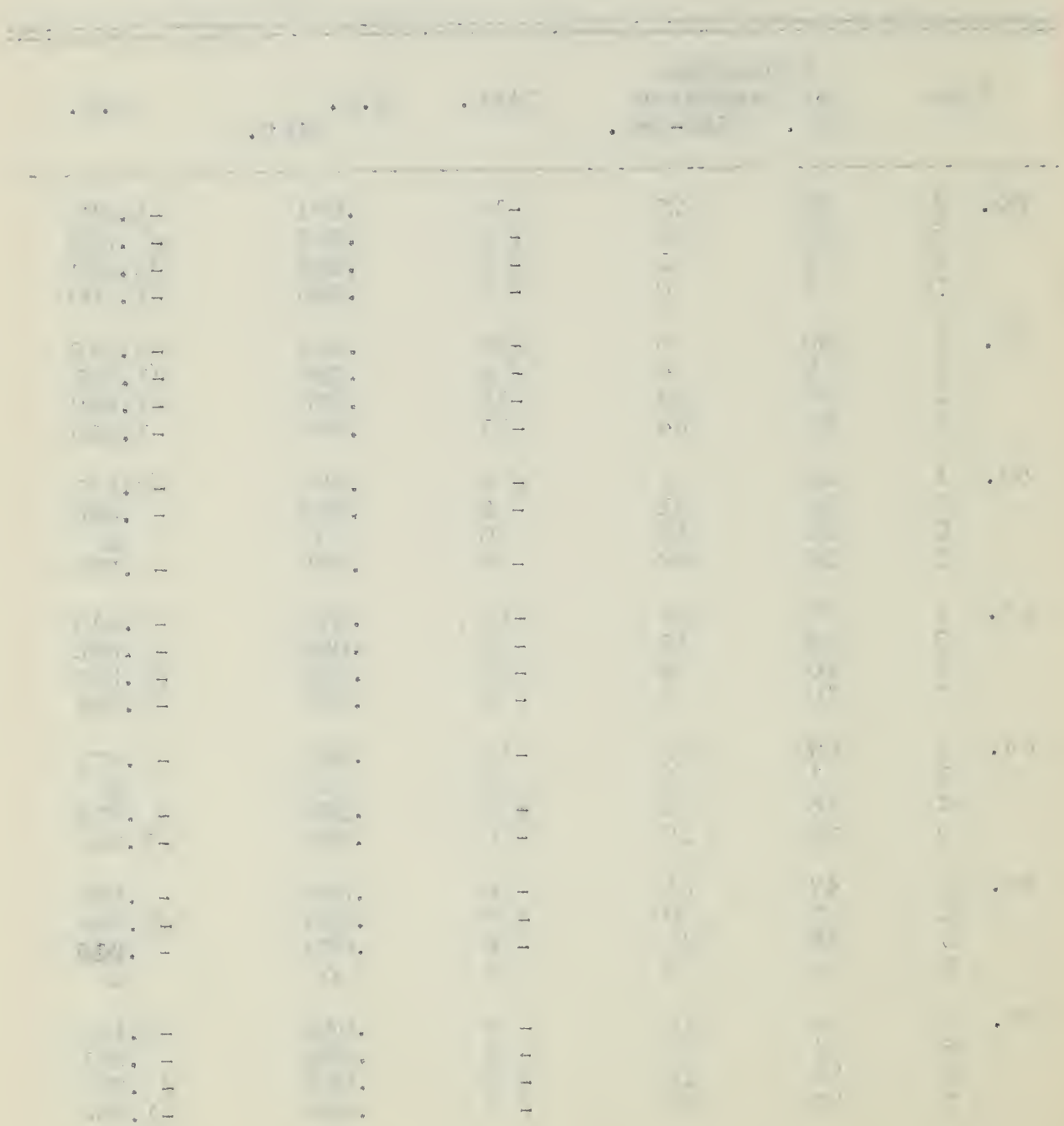

TABLE II (continued)

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
67.	A	8	11	- 3	.045	- .667
	B	43	47	- 4	.078	- .513
	C	32	37	- 5	.075	- .667
	D	17	5	≠12	.048	≠2.500
68.	A	40	48	- 8	.078	-1.026
	B	48	32	≠16	.076	≠2.105
	C	7	9	- 2	.041	- .488
	D	5	11	- 6	.042	-1.429
69.	A	49	41	≠ 8	.079	≠1.013
	B	33	47	-14	.076	-1.842
	C	15	12	≠ 3	.054	≠ .556
	D	3	0	≠ 3	.020	≠1.500
70.	A	26	67	-41	.071	-5.775
	B	12	9	≠ 3	.048	≠ .625
	C	6	1	≠ 5	.028	≠1.786
	D	56	23	≠33	.072	≠4.583
71.	A	44	59	-15	.078	-1.923
	B	14	10	≠ 4	.051	≠ .784
	C	31	19	≠12	.067	≠1.791
	D	11	12	- 1	.050	- .200
72.	A	38	32	≠ 6	.075	≠ .800
	B	23	26	- 3	.068	- .441
	C	15	32	-17	.066	-2.576
	D	24	10	≠14	.057	≠2.456

TABLE II (continued)

CRITICAL RATIOS OF THE ITEMS IN THE SCALE BETWEEN THE RESPONSES OF THE DELINQUENT GIRLS AND THE RESPONSES OF THE PUBLIC SCHOOL GIRLS

Item		Percentage of Responses Del.	Non-Del.	Diff.	S.E. Diff.	C.R.
73.	A	34	5	+29	.058	+5.000
	B	26	19	+ 7	.066	+1.061
	C	36	74	-38	.072	-5.278
	D	4	2	+ 2	.027	+ .741
74.	A	22	36	-14	.070	-2.000
	B	52	44	+ 8	.079	+1.013
	C	19	19	0	0	0
	D	7	1	+ 6	.030	+2.000

Table III shows the scoring weights given to each response for every item in the Girls' Scoring Key by using the critical ratios found in Table II.

TABLE III

GIRLS' SCORING KEY

Item	A	B	C	D
1	0	0	-1	≠1
2	-1	0	0	≠1
3	0	0	0	0
4	0	≠1	0	0
5	0	0	0	0
6	≠1	≠3	0	-3
7	0	0	0	≠1
8	≠3	-3	0	0
9	0	0	0	0
10	0	≠3	0	-3
11	≠3	-3	0	0
12	0	0	0	≠2
13	0	0	-2	≠1
14	0	0	-1	0
15	0	-2	≠3	0
16	≠3	-3	0	0
17	≠3	0	-1	-1
18	≠1	-3	0	0
19	0	-1	-1	≠1
20	0	0	0	0
21	0	0	0	0
22	0	0	-2	≠1
23	0	0	0	≠1
24	-1	-2	0	≠3
25	0	0	0	0
26	0	0	-2	≠3
27	-2	0	0	≠3
28	-2	0	0	≠1
29	≠3	0	-1	0
30	0	0	0	0

≠ Scores indicate Delinquency Proneness
\- Scores indicate Non-Delinquency Proneness

Scores weighted as follows:

Critical Ratio Exceeds 3.090 = ≠3 or -3
Critical Ratio - 2.577 - 3.090 = ≠2 or -2
Critical Ratio - 1.960 - 2.576 = ≠1 or -1

TABLE III (continued)

GIRLS' SCORING KEY

Item	A	B	C	D
31	✓1	-3	✓1	0
32	✓3	-2	0	0
33	0	0	0	0
34	0	0	-1	0
35	0	0	0	✓1
36	0	0	0	0
37	0	0	0	0
38	0	✓3	0	-3
39	✓1	-3	0	0
40	0	0	0	0
41	0	✓3	-1	0
42	0	0	-1	✓3
43	-3	✓1	0	0
44	0	0	0	0
45	0	0	0	0
46	0	0	-3	✓3
47	0	0	0	0
48	0	-1	0	✓3
49	✓3	✓2	-3	-1
50	✓3	0	-3	0
51	0	0	0	0
52	✓1	-3	0	✓2
53	✓1	-1	0	✓1
54	0	-3	-1	✓3
55	0	0	0	✓2
56	0	0	0	0
57	0	0	0	✓1
58	0	-2	0	0
59	0	-1	0	✓1
60	0	0	✓1	0
61	✓3	0	0	0
62	✓1	0	0	0
63	0	0	0	✓1
64	0	0	0	0
65	0	✓1	0	0
66	-1	0	0	0
67	0	0	0	✓1
68	0	✓1	0	0
69	0	0	0	0
70	-3	0	0	✓3
71	0	0	0	0
72	0	0	-1	✓1
73	✓3	0	-3	0
74	-1	0	0	✓1

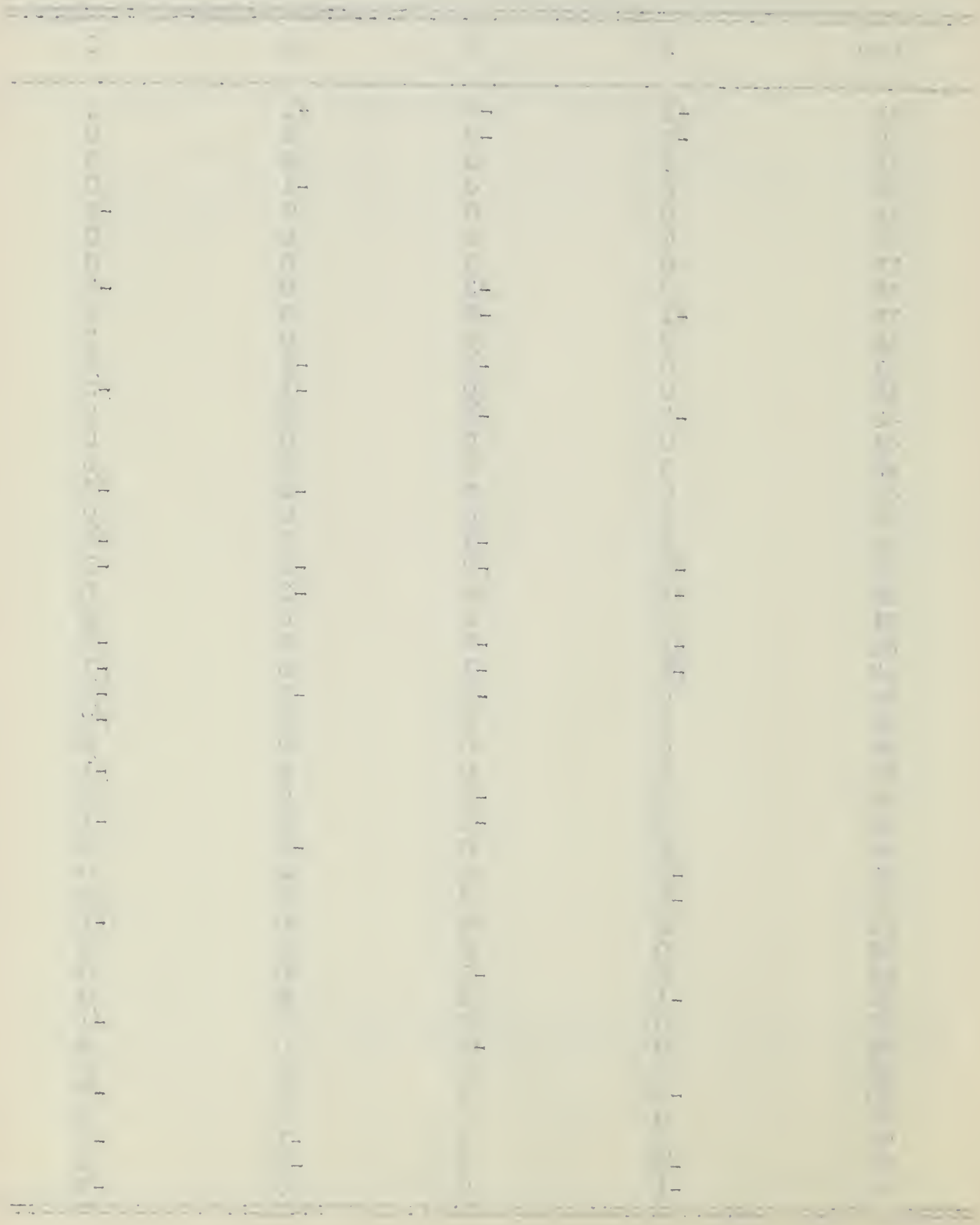

Table IV presents the frequency distribution of the Scale scores.

TABLE IV

DISTRIBUTION OF SCALE SCORES

Scale Scores	Delinquent Girls	Vocational School Girls	Public School Girls
56 - 60	1		
51 - 55	0		
46 - 50	4		
41 - 45	2	1	
36 - 40	4	1	
31 - 35	4	0	
26 - 30	10	3	
21 - 25	5	4	
16 - 20	11	5	
11 - 15	11	9	1
6 - 10	8	10	0
1 - 5	7	11	1
0 - -4	6	8	3
-5 - -9	3	9	5
-10 - -14	1	5	5
-15 - -19	2	3	8
-20 - -24	2	3	7
-25 - -29		0	8
-30 - -34		1	10
-35 - -39			15
-40 - -44			9
-45 - -49			5
-50 - -54			4
Number	81	73	81
Range	+60 to -20	+43 to -30	+11 to -54
Mean	+16.18	+4.04	-28.26
S.D.	16.80	14.75	14.35

Table IV shows that the delinquent girls' scores range from +60 to -20, with a mean score of +16.18 and a S.D. of 16.80. The vocational girls' scores range from +43 to -30, with a mean score of +4.04 and a S.D. of 14.75. The public school girls' scores range from +11 to -54 with a mean score of -28.26 and a S.D. of 14.35. The positive scores indicate delinquency proneness. The negative scores indicate non-delinquency proneness.

Table V shows the cumulative percentages of the frequency distribution of the Scale scores.

TABLE V

CUMULATIVE PERCENTAGE TABLE
FOR GIRLS' SCALE SCORES

Scale Scores			Delinquent Girls	Vocational School Girls	Public School Girls
+56	+60		01.2	0	0
+51	+55		01.2	0	0
+46	+50		06.2	0	0
+41	+45		08.7	01.4	0
+36	+40		13.6	02.7	0
+31	+35		18.5	02.7	0
+26	+30		30.8	06.8	0
+21	+25		37.0	12.3	0
+16	+20	Critical Score	50.6	19.2	0
+11	+15		64.2	31.5	01.2
+ 6	+10		74.0	45.2	01.2
+ 1	+ 5		82.7	60.3	02.5
0	- 4		90.1	71.2	06.2
- 5	- 9		93.8	83.6	12.3
-10	-14		95.1	90.4	18.5
-15	-19		97.5	94.5	28.4
-20	-24		100.0	98.6	37.0
-25	-29			98.6	46.9
-30	-34			100.0	59.3
-35	-39				77.8
-40	-44				88.9
-45	-49				95.1
-50	-54				100.0

Table V shows that a critical score of +20 would include 50.6 per cent of the delinquent girls, 19.2 per cent of the vocational school girls, and none of the public school girls.

Table VI shows the critical ratio found between the comparison of the delinquent girls' Scale scores and the public school girls' Scale scores.

TABLE VI

COMPARISON OF THE SCALE SCORES
OF DELINQUENT AND PUBLIC SCHOOL GIRLS

Group	N	Mean	S.D.	Diff.	$S.E._{Dif.}$	C.R.
Delinquent	81	+16.18	16.80	44.44	2.46	18.07
Public School	81	-28.26	14.35			

Table VI shows the significance of the difference of the means between the delinquent group and the public school group. The mean score of the delinquent group is +16.18 with a S.D. of 16.80. The mean score of the public school group is -28.26 with a S.D. of 14.35. The critical ratio of 18.07 is statistically significant to a high degree.

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Table VII shows the critical ratio found between the comparison of the delinquent girls' Scale scores and the vocational school girls' Scale scores.

TABLE VII

COMPARISON OF THE SCALE SCORES
OF DELINQUENT AND VOCATIONAL SCHOOL GIRLS

Group	N	Mean	S.D.	Diff.	S.E. Diff.	C.R.
Delinquent	81	⁄16.18	16.80	12.14	2.54	4.78
Vocational School	73	⁄ 4.04	14.75			

Table VII shows the significance of the difference of the means between the delinquent group and the vocational school group. The mean score of the delinquent group is ⁄16.18 with a S.D. of 16.80. The mean score of the vocational school group is ⁄4.04 with a S.D. of 14.75. The critical ratio of 4.78 is statistically significant.

Table VIII shows the critical ratio found between the comparison of the vocational school girls' Scale scores and the public school girls' Scale scores.

TABLE VIII

COMPARISON OF THE SCALE SCORES
OF VOCATIONAL SCHOOL AND PUBLIC SCHOOL GIRLS

Group	N	Mean	S.D.	Diff.	$S.E._{Diff.}$	C.R.
Vocational School	73	+4.04	14.75	32.30	2.35	13.75
Public School	81	-28.26	14.35			

Table VIII shows the significance of the difference of the means between the vocational school group and the public school group. The mean score of the vocational school group is +4.04 with a S.D. of 14.75. The mean score of the public school group is -28.26 with a S.D. of 14.35. The critical ratio of 13.75 is highly significant.

Table IX shows the summary of the critical ratios found between the comparisons of the three groups tested.

TABLE IX

SUMMARY OF THE SCALE SCORES
OF THE DELINQUENT, VOCATIONAL SCHOOL,
AND PUBLIC SCHOOL GROUPS

Group	N	Mean	S.D.	Diff.	S.E. Diff.	C.R.
I Delinquent	81	+16.18	16.80	12.14	2.54	4.78
II Vocational School	73	+ 4.04	14.75			
				32.30	2.35	13.75
III Public School	81	-28.26	14.35			
I Delinquent	81	+16.18	16.80	44.44	2.46	18.07
II Public School	81	-28.26	14.35			

Table IX shows the significance of the differences of the means of the three groups of girls tested. The mean score for the delinquent group is +16.18 with a S.D. of 16.80. The mean score of the vocational school group is +4.04 with a S.D. of 14.75. The critical ratio of 4.78 was found between the delinquent group and the vocational school group. The mean score of the public school group is -28.26 with a S.D. of 14.35. The critical ratio found between the vocational school group and the public school group is 13.75. The critical ratio found between the delinquent group and the public school group is 18.07. All three critical ratios are statistically significant.

Table X shows the correlations made between the Scale scores and the Intelligence test scores of the three contrasting groups to determine the extent to which intelligence influenced the Scale scores.

TABLE X

CORRELATIONS BETWEEN THE SCALE SCORES AND INTELLIGENCE TEST SCORES

N	Group	Correlation
81	Delinquent	-.423
73	Vocational School	-.367
81	Public School	-.310

Table X shows that all of the correlations are negative. The highest correlation is a -.423 between the delinquent girls' Scale scores and the delinquent girls' Intelligence test scores. Since the Scale purports to measure delinquency proneness, a negative correlation indicates that delinquency proneness is inversely related to intelligence.

OTHER CRITERIA DATA

A further validation of the K-D Proneness Scale was made by the use of other outside criteria on the Scale scores of the vocational school girls.

The Personal Index scores were correlated with the Scale scores and a validity coefficient of $\pm$.237 was found.

The Teachers' Behavior Ratings were correlated with the Scale scores and a negative validity coefficient of -.158 was obtained. The negative correlation may be due to the subjective ratings of the teachers. Pintner and Forlano[1] concluded that the unreliability of the teachers' ratings is partly due to the fact that the ordinary teachers rarely know the personality characteristics of their pupils.

RELIABILITY

The reliability of the Scale was determined by the test-retest method. The Scale was administered to a group of fifty-three delinquent girls. After an interval of six weeks it was again administered to the same group. The test and retest Scales were scored by the use of both the Boys' Key and the Girls' Key. When the test and the retest Scale scores

1. Pintner, Rudolph, and Forlano, George. "Validation of Personality Tests by Outstanding Characteristics of Pupils", Journal of Educational Psychology, 30:25-32, January, 1939.

as determined by the Boys' Key were correlated, a retesting coefficient of $\not$.750 was found. When the test and the retest Scale scores as determined by the Girls' Key were correlated, a retesting coefficient of $\not$.652 was obtained. The lower retesting coefficient obtained by correlation of the Scale scores determined by the Girls' Key may be due to the fact that the Scale items were designed primarily for boys.

CHAPTER V

SUMMARY AND CONCLUSIONS

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this study was to validate further the K-D Proneness Scale in the following ways: (1) to determine, by item analysis, which items of the Scale distinguished between a group of girls known to be delinquent and an unselected group of public school girls; (2) to determine the relationship between the Scale and other outside criteria: (a) Intelligence test scores (b) Personal Index scores and (c) Teachers' Behavior Ratings; (3) to determine the reliability of the Scale.

The K-D Proneness Scale consisted of seventy-four multiple choice questions with each question having four choices. The questions attempted to have the subject select the answer that best described how she felt or what she thought about the question.

The Scale was administered to eighty-one delinquent girls in a state industrial school, eighty-one unselected public school girls as representative of non-delinquents, and seventy-three vocational school girls considered to be possible pre-delinquents.

CONCLUSIONS

From an analysis of the data presented in this study, the following tentative conclusions were drawn:

The K-D Proneness Scale was considered valid because:

1. A highly significant difference of 18.07 was found between the mean Scale score of the delinquent group and the mean Scale score of the public school group.
2. A highly significant difference of 13.75 was also found between the mean Scale score of the vocational school group and the mean Scale score of the public school group.
3. A statistically significant difference of 4.78 was found between the mean Scale score of the delinquent group and the mean Scale score of the public school group.
4. A critical score of +20 was found that included 50.6 per cent of the delinquent girls, 19.2 per cent of the vocational school girls, and none of the public school girls.
5. The distribution of the Scale scores revealed that the highest positive scores, indicative of delinquency proneness, were attained by the delinquent girls. The vocational school girls attained the next highest positive scores.

The highest negative scores, indicative of non-delinquency proneness, were attained by the unselected public school girls.

6. An analysis of the test items revealed that fifty-four of the responses to the seventy-four multiple choice questions distinguished significantly between the delinquent and the non-delinquent girls.
7. Correlations between the Intelligence test scores of the delinquent girls (-.423), the vocational school girls (-.367), and the public school girls (-.310) indicated that the Scale did not measure intelligence. The negative correlations suggested that delinquency proneness is inversely related to intelligence.
8. A correlation of /.237 was found between the Personal Index scores and the Scale scores of the vocational school girls. The positive correlation showed that both tests measured the same factors to a slight degree.

9. A correlation of -.158 was found between the Teachers' Behavior Ratings and the Scale scores of the vocational school girls. The low negative correlation may have been due to the subjective nature of the criteria employed.

The K-D Proneness Scale was considered reliable because:

1. A correlation of the test and retest Scales of fifty-three delinquent girls, scored by the Boys' Key, resulted in a retesting coefficient of .750.
2. A correlation of the test and retest Scales of the same group of girls, scored by the Girls' Key, resulted in a retesting coefficient of .652.

The lower retesting coefficient obtained by the correlation of the Scale Scores determined by the Girls' Key may be due to the fact that the Scale items were designed primarily for boys. However, both of the correlations indicated that the Scale had a fairly high consistency in what it did measure.

IMPLICATION OF THE STUDY

The educational implication of this study seems to be that if an instrument such as the K-D Proneness Scale, designed to predict delinquency proneness, was made available to teachers, guidance counselors, and others concerned with the prevention of juvenile delinquency, many children in the incipient stages of delinquent tendencies could be identified and remedial action taken to prevent these tendencies from developing into overt behavior.

PROBLEMS SUGGESTED FOR FURTHER STUDY

1. A follow-up study of the girls identified in this experiment as revealing a proneness toward delinquency would give evidence of the predictive value of the Scale.

2. The Scale should be tried out with a wider sampling of children chosen from public school groups other than the ones used in this study. A follow-up study of these children would reveal whether the potential delinquents, as identified by the Scale, became delinquent.

3. Correlations could be run between the Scale and tests designed for individual diagnosis of behavior problems, e.g., the Minnesota Multiphasic Personality Inventory or the Stogdill Behavior Cards.

4. A vocabulary study should be made to determine the reading level of the Scale.

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APPENDIX

ATTITUDE AND BEHAVIOR SCALE

(Experimental Edition)

William C. Kvaraceus
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NAME_____ BOY___ GIRL___ AGE_____YRS.
Last First

MA_____

SCHOOL_____ GRADE_____

IQ_____

GROUP_____ DATE_____ TEST____

DIRECTIONS

This a questionnaire to discover how you feel about certain things. This is not a test. There are no right or wrong answers. Read each question and the four answers that follow it. Select the answer that best describes how you really feel about the question. Do not skip any questions. Answer every question as you come to it. Be sure to select the answer that best describes how you feel or what you think about the question. Remember there is no right or wrong answer. Be sure to choose the answer that best tells how you feel about the question.

Here is a sample question to show you how you are to mark the answers.

1. The color I like best is

A. red B. pink C. blue D. purple 1.( )

In the parenthesis, at the right side of the page, write the letter A, B, C, or D which tells which color you like best. Be sure to write only the letter in the parenthesis.

Mark all questions in the same way. Be sure to answer each question as you come to it. You will be given enough time to answer all the questions. Turn the page and begin.

1. The drink I like best is 1. ( )
   A. soda pop B. milk C. water D. coffee

2. Of the following subjects, which do you like to study best? 2. ( )
   A. English C. Art or Drawing
   B. Science D. Manual Training or Home Economics

3. Those who get the best jobs are usually the ones 3. ( )
   A. who know the right person C. who are the luckiest
   B. who are the best trained D. who work the hardest

4. Going to high school 4. ( )
   A. is a waste of time
   B. is all right for some people but not for me
   C. is all right if you can take the course you want
   D. is necessary for success

5. If I were called a dirty name, I would 5. ( )
   A. fight the person C. say and do nothing
   B. tell him where to get off D. laugh it off

6. I like best to watch 6. ( )
   A. baseball games C. horse races
   B. prize fights D. basketball games

7. When you do your school work 7. ( )
   A. you always get your reward
   B. you sometimes get your reward
   C. you seldom get your reward
   D. you never get your just reward

8. Parents usually understand their children 8. ( )
   A. very well B. quite well C. not very well D.not at all

9. If you want to be popular you have to do what the crowd does 9. ( )
   A. all the time C. some of the time
   B. most of the time D. seldom or never

10. I believe that failure is usually due to 10. ( )
   A. bad habits C. lack of ability
   B. bad companions D. lack of hard work

11. The pupils who have the best attendance records are almost always 11. ( )
   A. honor students B. good students C.poor students D.sissies

12. During the summer I would like best to stay 12. ( )
   A. around the house
   B. at a summer camp away from home
   C. at a YMCA (YWCA) day camp
   D. at the playground near home

13. I would never like to be a 13. ( )
   A. teacher B. minister C. doctor D. crooner

14. You have lots more fun if you live in a family with 14. ( )
   A. no brothers or sisters
   B. only one brother or sister
   C. two brothers or sisters
   D. more than four brothers or sisters

15. Most boys stay in school because 15. ( )
   A. the law makes them C. they want to go to college
   B. they have to learn to make a living D. they like school

16. Most teachers are 16. ( )
A.very fair B.fair most of the time C.seldom fair D.never fair

17. Smoking is a habit that hurts you 17. ( )
A.not at all B.a little C.more than a little D.a great deal

18. The secret of success is 18. ( )
A. just luck B. hard work C. ability D. money

19. I would like most to be a famous 19. ( )
A.movie actor (actress) B.athlete C.scientist D.writer

20. Most people who get in trouble do not think that 20. ( )
A. they will be caught C. they are really doing wrong
B. they will be punished D. they are hurting others

21. I like best to drink 21. ( )
A. gingerale B. coke C. root beer D. milk shake

22. If I am asked to do something which I think is not reasonable, I will 22. ( )
A. just refuse to do it
B. argue first and then do just enough to get by
C. do what I'm told and then argue later
D. do what I'm told and say nothing

23. The work that you get in school is usually 23. ( )
A. very hard B. hard C. pretty easy D. very easy

24. You have the most fun when you play 24. ( )
A. in your own house C. on your street
B. in your own yard D. on the playground near your house

25. Being successful usually means 25. ( )
A. having a big fortune
B. having many friends
C. having your name in the paper
D. having the respect of many people

26. The best teachers are the ones who are 26. ( )
A. very easy B. easy C. hard D. very hard

27. Most policemen try to 27. ( )
A. help you B. scare you C. boss you D.get something on you

28. I would like to attend the movies 28. ( )
A. once a week C. three or four times a week
B. twice a week D. every day

29. It is true that cheating in school is usually done by 29. ( )
A. only a few bad pupils C. most of the pupils
B. some of the pupils D. all the pupils

30. You usually have the best time when you do things 30. ( )
A. all by yourself C. with two or three friends
B. with one friend D. with a big gang

31. In school I have found that the teachers know what they are talking about 31. ( )
A. always C. some of the time
B. most of the time D. seldom or never

32. I have found that older people understand younger people 32. ( )
A. very well B. rather well C. a little D. not at all

33. Of the following subjects, which do you dislike the most? 33. ( )
A. history or social studies C. English
B. mathematics D. shop classes

34. A boy or girl should be allowed to be his own boss when he is 34. ( )
A. 14 years old C. 18 years old
B. 16 years old D. 21 years old

35. People who live in fine houses usually are 35. ( )
A. the best people in town
B. smarter and more educated than most people
C. just lucky
D. crooked in business

36. In my family I would like to be 36. ( )
A. the oldest one C. the only child
B. the youngest one D. one of a large family

37. In schools the good marks are usually given to those 37. ( )
A. who do the best work
B. who work the hardest
C. who only make believe they are working
D. who are teachers' pets

38. When I leave school or graduate, I shall 38. ( )
A. take any job that comes along
B. find a good job
C. take it easy for a while
D. go to another school or college

39. Happiness is impossible without 39. ( )
A. love B. friends C. a home D. money

40. Whenever I get into serious trouble, other people are to blame 40. ( )
A. always C. sometimes
B. almost always D. seldom or never

41. The color I like best is 41. ( )
A. red B. black C. yellow D. blue

42. For the most serious trouble I have ever been in 42. ( )
A. others were to blame more than I was
B. others were as much to blame as I was
C. I was partly to blame
D. I was wholly to blame

43. I would like to stay in bed late in the morning 43. ( )
A. every day B. Saturdays and Sundays C.Sundays D.never

44. The sport I like best is 44. ( )
A. fishing or hunting C. football or baseball
B. over-night hiking D. wrestling

45. The vegetable I like best is 45. ( )
A. squash B. potato C. spinach D. carrot

46. In the schools teachers can usually be depended upon to do 46. ( )
A. nothing to help C. much to help me
B. a little to help me D. all they can to help me

47. In school my friends 47. ( )
A. always get me in trouble
B. almost always get me in trouble
C. sometimes get me in trouble
D. never get me in trouble

48. Of the teachers I know, I like to study with 48. ( )
A. all of them C. some of them
B. most of them D. one of them

49. During the past month I have worried about my family 49. ( )
A. all the time C. some of the time
B. most of the time D. not at all

50. I think about what I'll do when I get out of school 50. ( )
A. all the time C. some of the time
B. most of the time D. not at all

51. Going to school causes one to be worried and upset 51. ( )
A. all the time C. some of the time
B. most of the time D. never

52. I have usually been 52. ( )
A. very lucky C. unlucky most of the time
B. lucky most of the time D. unlucky all the time

53. Taking part in school clubs is 53. ( )
A. very important C. not very important
B. quite important D. very unimportant

54. The most popular boys are the ones 54. ( )
A. who almost always get into mischief
B. who sometimes get into mischief
C. who seldom get into mischief
D. who almost never get into mischief

55. When not in school, you can have the most fun 55. ( )
A. in the mornings C. in the evenings
B. in the afternoons D. late at night

56. The pupils who skip school are usually the ones 56. ( )
A. who get the best marks C. who get fair marks
B. who get good marks D. who get the poorest marks

57. Going to college is 57. ( )
A. necessary for success
B. all right if you can afford it
C. all right if you have the ability
D. just a waste of time and money

58. Most teachers act like other human beings 58. ( )
A. always C. some of the time
B. most of the time D. seldom or never

59. I look forward to the time when I shall leave home 59. ( )
A. not at all B. some times C.often D. very often

60. Going to school right now is doing me 60. ( )
A. a great deal of good C.doing me more harm than good
B. some good D.doing me a great deal of harm

61. During the past month I have been worrying about my health 61. ( )
A. all the time C. some of the time
B. most of the time D. none of the time

62. Teachers and principals usually treat pupils 62. ( )
A. like slaves or work animals C.like little children
B. like someone beneath them D.like their equals

63. It is usually true that the police 63. ( )
A. are very fair C. play favorite to the rich
B. make some mistakes D. are unfair

64. Failing marks on your report card usually mean 64. ( )
A. you didn't do your work C.your teacher doesn't like you
B. you are dumb D.you have been absent a lot

65. The best season of the year is 65. ( )
A. Christmas time C. summer time
B. Easter time D. Thanksgiving time

66. The dessert I like best is 66. ( )
A. jello B. bread pudding C. custard D. pie

67. On my report card I usually get 67. ( )
A. all honor marks C. fair marks
B. mostly good marks D. some failure marks

68. The game I like best is 68. ( )
A. checkers B. bingo C. marbles D. authors

69. School rules and regulations have good reasons behind them 69. ( )
A. always C. some of the time
B. almost always D. seldom or never

70. When I am with someone else and we want something to drink I like to 70. ( )
A. buy my own drink
B. match to see who will pay
C. fix it so the other person usually pays
D. pay for all the drinks

71. People who wear fine clothes usually are 71. ( )
A. just lucky C. better educated than others
B. smarter than other people D. the best people in town

72. If I had the money I would like best to go to a 72. ( )
A. dance B. movie C. concert D. bowling alley

73. It is the most fun to have 73. ( )
A. one girl (boy) friend
B. a few girl (boy) friends
C. lots of girl (boy) friends
D. no girl (boy) friends

74. I have learned that 74. ( )
A. most people can be trusted
B. some people can be trusted
C. a few people can be trusted
D. no one can be trusted

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